

Application No. 09/362.189
Attorneys' Docket No. 045112-014

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congress*
42. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and permethrin.
43. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and carbaryl.
44. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and eugenol.
45. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and trans-anethole.
46. A pesticidal composition comprising, in admixture with an acceptable carrier, eugenol and trans-anethole.
47. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol, pyrethrum, tetrahydrofurfuryl alcohol (THFA), PD 98059, and trans-anethole.
48. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol, chrysanthemate esters, tetrahydrofurfuryl alcohol (THFA), PD 98059, and trans-anethole.
49. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and trans-anethole.
50. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and trans-anethole.
51. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol, phenethyl propionate and cis-jasmone.
52. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and phenethyl propionate.

REMARKS

Claims 5 through 11 are pending in the application. Claims 1 through 4 and 12 through 15 have been previously withdrawn from consideration as being directed to non-elected subject matter. Additionally, Claims 5 through 11 have been previously elected for initial prosecution on the merits for benzyl alcohol and pyrethrum (i.e. natural insecticide). Claims 1-4, 7, 9, and 11 - 15 are canceled without prejudice to, or disclaimer of, the subject matter they contain. Claims

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5, 6, 8 and 10 are amended and Claims 16 through 52 are added to encompass infringing subject matter. No new matter is introduced into the application.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made."

Applicants acknowledge that the Office Action has made the restriction requirement final. Applicants respectfully maintain its traversal for the reasons of record.

THE REJECTIONS UNDER 35 U.S.C. 112, SECOND PARAGRAPH

Claims 5 and 8 stand rejected under 35 U.S.C. §112, second paragraph, as assertedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Actions states, "'Acceptable' is indefinite and relative term-as what, to whom?" Additionally, the Office Action suggests "identifying in the claim all the appropriate pesticidal groups, including propar[g]ite, and dropping the 'other conventional' as this includes herbicidal and antifungal, antimicrobial conventional that are beyond the scope of this invention—i.e. the form is indefinite." Applicants respectfully traverse these rejections to the extent they may be applicable to the claims as amended. Applicants have made the term "acceptable" relative to a "pesticidal carrier." Also, Applicants have omitted the phrase "other conventional classes of pesticides such as" from Claim 8 to obviate the 112 rejection. Reconsideration and withdrawal of the rejection are therefore respectfully requested.

THE REJECTIONS UNDER 35 U.S.C. 112, FIRST PARAGRAPH

Claims 8 through 11 stand rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonable convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. This rejection is respectfully traversed for at least the following reasons:

The Applicants' respectfully traverse the Examiner's conclusion that the instant written description fails to support the claimed "synergists," in relevant part, claimed combinations comprising dimethyl sulfoxide (DMSO) as a synergist. Support for DMSO as a synergist and data evidencing its synergistic effects are provided in the specification on Page 7, lines 29-31 through to Page 8, lines 1 and 2; and in Example 5 found on Page 19, line 5 through to Page 20,

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line 13. Notwithstanding, Claims 8 and 10 have been amended and Claim 11 has been cancelled, thereby rendering this rejection moot. Accordingly, the rejection under §112, first paragraph, should be withdrawn and such favorable action is requested.

THE REJECTIONS UNDER 35 U.S.C. 102(b)

Further in the claims, Claims 5 through 8, 10 and 11 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Hink et al. (U.S. Patent No. 4,933,371) (A); Hasegawa et al. (U.S. Patent No. 4,663,315) (B); DE 4,421,471 (C); DE 3733640 (D); and Guerrini (E). In addition the Office Action rejects Claims 5 through 11 under 35 U.S.C. §102(b) as being anticipated by BE 1002598 (F) and Granirer et al. (G). The Office Action states:

(A) Hink et al. discloses linalool, both a plant essential oil compound (col. 1, line 31-45), and a natural insecticide, is combined with an acceptable carrier, water (col. 4, line 33). Synergists are added (col. 6, line 16-25). Additional essential oils are utilized (col. 7). Eugenol, alpha terpineol, with synergists, and linalool considered to be a natural insecticide. Other modes include chlorpyrifos, organophosphates, with linalool (Col. 7, line 26-31). See also col. 16, bottom--more synergists.

(B) Hasegawa et al. discloses pesticidal compositions including acceptable carriers (organic solvents (col. 12, Example 65-96) with benzyl alcohol (75) and organo phosphate or other conventional pesticide (92-96). Other modes called for synergists (col. 1, line 2-17).

(C) DE 4,421,471 provides natural pyrethrum and a synergist with acceptable carriers and plant essential oil.

(D) DE 3,733,640 discloses that Beirpiel-pyrethrum, synergist and essential oils--alcohols, with acceptable carriers are known insecticides.

(E) Guerrini discloses geraniol (page 2, bottom); neem carriers (see example), conventional pesticide and synergists.

(F) BE 1002598 discloses Dimethyl sulfoxide equivalent to sesame oil and piperonyl butoxide as a synergist (p. 4, line 8-line 27) with pyrethrum or pyrethroid insecticides and essential oils (p.3, line 7-21) teycineol). Additional natural insecticides are at p. 5-Rotenone and chrysanthemate esters; also, synthetic pyrethroids.

(G) Granirer et al. discloses pyrethrum + peppermint oil or rosemary or eucalyptus, with acceptable carriers are insecticidal (col. 1, line 42-68). Since the pyrethrum includes [c]is-jasmone, chrysanthemic acid and

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pyrethrolone, it also [in]cludes synergists as claimed (see Casida, p. 365-p. 32).

Office Action at pages 3 through 5. Applicants respectfully traverse these rejections.

The initial burden of establishing a prima facie basis to deny patentability to a claimed invention under any statutory provision always rests on the Patent Office. *In re Mayne*, 104 F.3d 1339, 41 U.S.P.Q.2d 1451 (Fed. Cir. 1997); *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d 1443 (Fed. Cir. 1992). Applicants respectfully submit that the Office Action has not discharged this initial burden. The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention. *The Kegel Co. v. AMF Bowling*, 127 F.3d 1420, 44 USPQ2d 1123 (Fed. Cir. 1997); *Gechter v. Davidson*, 116 F.3d 1454, 43 USPQ2d 1030 (Fed. Cir. 1997). In rejecting a claim under 35 U.S.C. § 102, the PTO is required to identify wherein a particular reference identically discloses each feature of the claimed invention. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). Applicants respectfully submit that there are significant differences between the presently claimed invention and the cited references. These rejections are traversed for at least the following reasons.

Claims 5-11 are directed to a pesticidal composition comprising, in admixture with an acceptable pesticidal carrier, at least one compound selected from a group consisting of aldehyde C16 (pure), amyl cinnamic aldehyde, amyl salicylate, anisic aldehyde, benzyl alcohol, benzyl acetate, cinnamaldehyde, cinnamic alcohol, carveol, citronellol, dimethyl salicylate, eucalyptol (cineole), eugenol, iso-eugenol, galaxolide, guaiacol, ionone, menthol, methyl anthranilate, methyl ionone, methyl salicylate, alpha-phellandrene, pennyroyal oil, perillaldehyde, 1- or 2-phenylethyl alcohol, 1- or 2-phenylethyl propionate, piperonal, piperonyl acetate, piperonyl alcohol, D-pulegone, terpinen-4-ol, terpinyl acetate, 4-tert butylcyclohexyl acetate, thyme oil (white and red), thymol, trans-anethole, vanillin, ethyl vanillin, pyrethrolone, allethrolone, chrysanthemic acid, chrysanthemyl alcohol, chrysanthemate esters, and cis-jasmone; and at least one pesticidal agent selected from a member of the group consisting of plant essential oil compound, selected from a group consisting of aldehyde C16 (pure), amyl cinnamic aldehyde, amyl salicylate, anisic aldehyde, benzyl alcohol, benzyl acetate, cinnamaldehyde, cinnamic alcohol, carveol, citronellol, dimethyl salicylate, eucalyptol (cineole), eugenol, iso-eugenol,

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galaxolide, guaiacol, ionone, menthol, methyl anthranilate, methyl ionone, methyl salicylate, alpha-phellandrene, pennyroyal oil, perillaldehyde, 1- or 2-phenylethyl alcohol, 1- or 2-phenylethyl propionate, piperonal, piperonyl acetate, piperonyl alcohol, D-pulegone, terpinen-4-ol, terpinyl acetate, 4-tert butylcyclohexyl acetate, thyme oil (white and red), thymol, trans-anethole, vanillin, ethyl vanillin, chlorinated hydrocarbon, synthetic pyrethroid, carbamate, macrolide, insect growth regulator, neonicotinoid, organo-tin, and propargite.

Hink et al. merely discloses the use of linalool, chlorpyrifos, and pesticidally active terpenes selected from a group consisting of d-limonene, α -terpineol, carvacrol, citronellal, eugenol, citral, geraniol, or camphene to combat ticks and fleas, including a synergist selected from a group consisting of sesame oil, piperonyl butoxide, propylene glycol, MGK-264 and pesticidally active terpene e.g., dl or d-limonene, α -terpineol, carvacrol, citronellal, eugenol, citral, geraniol or camphene. Hink et al. does not disclose Applicants' claimed pesticidal compositions as presently recited in the claims. Therefore, Hink et al. does not anticipate the claimed invention and reconsideration and removal of the rejection are respectfully requested.

Applicants' Claims 5 through 8, 10 and 11 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Hasegawa et al. (U.S. Patent No. 4,663,315). Applicants respectfully submit that Hasegawa et al. does not disclose the claimed invention. At best, Hasegawa et al. teaches a two-component thermally vaporizable composition, suitable for an absorbing body, comprising a deodorant or perfume and an insecticide. Moreover, Hasegawa et al. does not disclose Applicants' claimed pesticidal composition. Hasegawa et al. only teaches compositions using one of the perfumes or deodorants as listed and numbered 65 through 83 in columns 12 and 13, and one of the bactericides or repellents as listed and numbered 92 through 96 in columns 12 and 13. Not one of the combinations comprising a perfume or deodorant and a bactericide or repellent selected from the above-mentioned list discloses Applicants' pesticidal compositions. As a result, Hasegawa et al. does not anticipate Applicants' claimed invention. The rejection under §102(b) based on Hasegawa et al. should be reconsidered and withdrawn, and such favorable action is respectfully requested.

Applicants' Claims 5 through 11 stand rejected under 35 U.S.C. §102(b) as assertedly being anticipated by BE 1002598. For clarification of the record, Applicants understand the Office Action to state dimethyl sulfoxide is the functional equivalent of sesame oil and piperonyl butozideas because all three act as synergists.

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Now turning to the instant rejection, BE 1002598 does not disclose Applicants' claimed pesticidal compositions. At best, BE 1002598 discloses a dispersion of pyrethroids selected from a group consisting of terpineol, piperonyl-butoxide, sesame oil, sesamin oil, sesamex oil, and alkyl-, methyl- or ethyl sulfoxide, emulsifiers and surfactants. Any combination of one member of the pyrethroids as listed in BE 1002598 on page 5 and any one of the above-listed compounds disclosed in BE 1002598 does not disclose each and every element of Applicants' claimed pesticidal composition. Accordingly, BE 1002598 does not anticipate the claimed invention, and reconsideration and withdrawal of the rejection are respectfully requested.

Applicants Claims 5 through 8, 10 and 11 are rejected under 35 U.S.C. §102(b) as assertedly being anticipated by DE 4,421,471. As acknowledged in the Office Action, DE 4,421,471 discloses pyrethrum and essential oils in a pharmaceutically acceptable carrier. DE 4,421,471, however, only teaches pyrethrum with vegetable oil selected from a group consisting of rape seed oil, sunflower oil and cottonseed oil. DE 4,421,471 does not disclose each and every element of Applicants' claimed invention, as presently recited in the rejected claims. Thus, DE 4,421,471 does not anticipate the claimed invention, and reconsideration and withdrawal of the rejection are respectfully requested.

Applicants Claims 5 through 8, 10 and 11 are rejected under 35 U.S.C. §102(b) as assertedly being anticipated by DE 3,733,640. At best, DE 3,733,640 discloses the combination of pyrethrin extract, black pepper oil, adjuvants with or without volatile oils, and piperonyl butoxide. DE 3,733,640 neither discloses each and every element of, nor anticipates, the claimed invention as recited in the claims. Thus, withdrawal and reconsideration of this rejection are respectfully requested.

Applicants Claims 5 through 8, 10 and 11 stand rejected under 35 U.S.C. §102(b) as assertedly being anticipated by Guerrini (WO 91/08670). Guerrini merely discloses a composition comprising azadirachtin, dialkyltoluamide and an oil containing geraniol and/or citronellal. Therefore, the resulting taught pesticidal compositions are azadirachtin and geraniol, azadirachtin and citronellal, dialkyltoluamide and geraniol, or dialkyltoluamide and citronellal. Such compositions do not disclose Applicants' invention as recited in the claims. Accordingly, rejection under §102(b) based on Guerrini should be reconsidered and withdrawn and such favorable action is respectfully requested.

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Applicants' Claims 5 through 11 stand rejected under 35 U.S.C. §102(b) as assertedly being anticipated by Granirer et al. (WO 91/08670). Applicants traverse the conclusion made in the Office Action stating that "since the pyrethrum includes [c]is-jasmone, chrysanthemic acid and pyrethrolone it also includes synergists as claimed (see Casida p. 365-p. 32)." Applicants respectfully note that a proper §102 rejection is based on a single reference that alleges to disclose each and every element of the claimed invention. Accordingly, it is inappropriate to rely on Casida, a second reference, to bolster the disclosure of Granirer et al. Under §102(b), the anticipatory scope of Granirer et al. is only as broad as taught by the four corners of the reference.

Assuming arguendo, the fact that pyrethrum includes cis-jasmone, chrysanthemic acid and pyrethrolone, does not evince their capabilities to act as synergists. A prior art genus does not necessarily anticipate a later claimed species. *Ex parte A*, 17 U.S.P.Q.2d 1716 (B.P.A.I. 1990). A genus will only anticipate a claimed species if the species is clearly named, (i.e. "clearly envisaged") in the reference. *Ex parte A*, 17 U.S.P.Q.2d 1716 (B.P.A.I. 1990). Granirer et al. is devoid of teaching the cis-jasmone, chrysanthemic acid and pyrethrolone in an insect-killing composition.

Moreover, Granirer et al. merely discloses an insect-killing composition comprising pyrethrum and/or rotenone and one or more of eucalyptus, rosemary, peppermint, boric acid, Borax, and baking soda. Not one composition taught in Granirer discloses each and every element of Applicants' claimed compositions and thus, Granirer et al. does not anticipate Applicants' invention. Therefore, reconsideration and withdrawal of the rejection are respectfully requested.

THE REJECTIONS UNDER 35. U.S.C. 103(a)

Further in the claims, Claims 8 through 11 stand rejected under 35 U.S.C. §103(a) as assertedly unpatentable over Hink et al. in view of DE 3733640 and Casida et al., Hink et al. in view of DE 3733640 and BE 1002598, Hink et al. in view of DE 4421471 and Casida et al.; and Hink et al. in view of DE 4421471 and BE 1002598. Additionally, Claims 8 through 11 stand rejected under 35 U.S.C. §103(a) as assertedly unpatentable over Hasegawa et al. in view of DE 3733640 and Casida et al., Hasegawa et al. in view of DE 3733640 and BE 1002598, Hasegawa et al. in view of DE 4421471 and Casida et al.; and Hasegawa et al. in view of DE 4421471 and

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BE 1002598. Lastly, Claims 8 through 11 stand rejected under 35 U.S.C. §103(a) as assertedly unpatentable over BE 1002598 in view of DE 3733640 and Casida et al., and BE 1002598 in view of DE 4421471 and Casida et al. These rejections are respectfully traversed for at least the following reasons.

At the outset it is respectfully submitted that the present record is absent of any motivation to combine Hink et al., Hasegawa et al. or BE 1002598 in view of any of the above-stated combinations. The Federal Circuit in *In re Dembiczak* noted that:

Measuring a claimed invention against the standard established by section 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field.

In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). The Patent Office "cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1780, 1783 (Fed. Cir. 1988). Rather, in making a rejection under 35 U.S.C. 103(a), the Patent Office must show a teaching or motivation to combine the cited prior art references. *See Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. "Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight." *Id.* "When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references." *In re Rouffet*, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998) (citing *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987)). "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Although the suggestion to combine references may flow from the nature of the problem, *see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), "[d]efining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness," *Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 880, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998). Therefore, "[w]hen determining the patentability of a claimed invention

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which combines two known elements, 'the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" *In re Beattie*, 974 F.2d 1309, 1311-12, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992) (quoting *Lindemann*, 730 F.2d at 1462, 221 USPQ at 488).

Applicants respectfully submit that the Patent Office has used the rejected claims as a blueprint for the deficient Hink et al., Hasegawa et al. and BE 1002598 references, and looked to other cited prior art references for elements present in the claimed invention but missing from Hink et al., Hasegawa et al. and BE 1002598, respectively. The Office Action does not discuss any specific evidence of motivation to combine, but only makes conclusory statements. "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'" *Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. The Office Action provides no support for its broad conclusory statement that the subject matter of the rejected claims was known in the art. Nor does the Office Action provide support for its implicit finding that it would be obvious to one of ordinary skill in the art to combine the teachings of the cited references. In fact, nowhere does the Office Action particularly identify any suggestion, teaching, or motivation to combine the cited references, let alone any cogent technical reasoning, to achieve the claimed invention. The absence of a convincing discussion of the specific sources of the motivation to combine the cited prior art references is a critical omission in the pending obviousness rejection.

Moreover, the Federal Circuit has held that "[t]he suggestion to combine may be found in explicit or implicit teachings within the references themselves, from the ordinary knowledge of those skilled in the art, or from the nature of the problem to be solved." *WMS Gaming, Inc. v. International Game Tech.*, 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). However, there still must be evidence that "a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 149 F.3d at 1357, 47 USPQ2d at 1456; see also *In re Werner Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("[A] rejection cannot be predicated on the mere identification . . . of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed."). Here, there was no such evidence

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presented. Thus, Applicants respectfully request reconsideration and withdrawal of these rejections.

Notwithstanding, Applicants' invention provides unexpected enhanced results. Applicants' invention stems from the recognition that compounds of naturally occurring plant essential oils unexpectedly exhibit synergistic and residual effects on pesticidal agents. The synergistic effects of the claimed invention allows for a decrease in the necessary amount of a pesticidal agent while still maintaining the same strong ability to kill pests. The residual effects of the claimed invention increases the efficacy of the pesticidal composition over extended time periods. Examples 1 through 24, starting at page 16 of the specification, illustrate pesticidal compositions having synergism, and residual effects for varying time periods ranging from one hour up to sixty days. Moreover, the synergistic and residual effects of Applicants' invention increases and enhances the biological activity of the pesticidal agents.

Although the cited references comprise pesticidal compositions which in some cases are stated to exhibit synergistic effects, the cited references do not provide an expectation that similar pesticidal compositions (e.g. Applicants claimed invention) would necessarily be effective as well. Broad spectrum activity of other compounds cannot be predicted or expected based on the activity of the compositions disclosed in the cited references. In large part, the cited references only disclose compounds already well documented for their synergistic effects. Although, the two German references, DE 3733640 and DE 4421471, teach new compounds exhibiting synergism, i.e. black pepper oil and vegetable oils, the disclosure is limited in particular to their use with pyrethrin and pyrethrum, respectively. None of the combinations of references teach Applicants' synergistic compositions as recited in the claims. In fact, none of the cited references even mentions residual effects of their particular compositions.

Further, Applicants' own data provides further evidence of the unpredictability of synergistic and residual activity of plant essential oils. Depending on the specific pesticidal composition, different compositions exhibit higher kill rates over longer time periods than others. For instance, a benzyl alcohol and pyrethrum composition exhibits a 100% mortality rate after 30 days of treatment, but benzyl alcohol and crysanthemate ester exhibits a 100% mortality rate only up to seven days following treatment (See Examples 8 and 9 of the specification). Thus, it is submitted that an ordinary skilled artisan cannot use data of toxicity of a particular pesticidal composition to predict or expect synergistic and residual efficacy of a different or related plant

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essential oil containing pesticidal composition. Accordingly, the rejection under 35 U.S.C. §103(a) should be withdrawn and such favorable action is respectfully requested.

CONCLUSION

Early consideration and prompt allowance of the pending claims are respectfully requested. If anything could be done to place this application in condition for allowance, e.g., by Examiner's Amendment, Applicants respectfully request that the Examiner contact the undersigned representative at the telephone number listed below.

To the extent necessary, please grant any extension of time deemed necessary for entry of this communication. Please charge any deficient fees, or credit any overpayment of fees, to Deposit Account 500417.

Respectfully submitted,



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ATTACHMENT
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

5. (Amended) A pesticidal composition comprising, in admixture with an acceptable pesticidal carrier,

a. at least [at least] one compound selected from the group consisting of
aldehyde C16 (pure), amyl cinnamic aldehyde, amyl salicylate, anisic aldehyde, benzyl alcohol,
benzyl acetate, cinnamaldehyde, cinnamic alcohol, carveol, citronellol, dimethyl salicylate,
eucalyptol (cineole), eugenol, iso-eugenol, galaxolide, guaiacol, ionone, menthol, methyl
anthranilate, methyl ionone, methyl salicylate, alpha-phellandrene, pennyroyal oil,
perillaldehyde, 1- or 2-phenylethyl alcohol, 1- or 2-phenylethyl propionate, piperonal, piperonyl
acetate, piperonyl alcohol, D-pulegone, terpinen-4-ol, terpinyl acetate, 4-tert butylcyclohexyl
acetate, thyme oil (white and red), thymol, trans-anethole, vanillin, and ethyl vanillin; and

b. at least one pesticidal agent selected from the group consisting of:

i. plant essential oil compound, selected from the group consisting of
aldehyde C16 (pure), amyl cinnamic aldehyde, amyl salicylate, anisic aldehyde, benzyl alcohol,
benzyl acetate, cinnamaldehyde, cinnamic alcohol, carveol, citronellol, dimethyl salicylate,
eucalyptol (cineole), eugenol, iso-eugenol, galaxolide, guaiacol, ionone, menthol, methyl
anthranilate, methyl ionone, methyl salicylate, alpha-phellandrene, pennyroyal oil,
perillaldehyde, 1- or 2-phenylethyl alcohol, 1- or 2-phenylethyl propionate, piperonal, piperonyl
acetate, piperonyl alcohol, D-pulegone, terpinen-4-ol, terpinyl acetate, 4-tert butylcyclohexyl
acetate, thyme oil (white and red), thymol, trans-anethole, vanillin, and ethyl vanillin;

ii. [natural insecticide compound,]chlorinated hydrocarbon, synthetic
pyrethroid, [organo phosphate,] carbamate, macrolide, insect growth regulator, neonicitinoid,
organo-tin, and [other conventional classes of pesticides such as]propargite.

6. (Amended) The pesticidal composition of claim 5, wherein the pesticidal agent is
selected from the group consisting of allethrin, azadirachtin (neem), carbaryl, [chloroyritos,]

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DDT, fenvalerate, deltamethrin, malathion, permethrin, cypermethrin, cyhalothrin, abamectin, tebufenozide, imidacloprid, resmethrin, propargite, fenbutatin-oxide, pyrethrum, and rotenone.

7. [CANCELED]

8. (Amended) A pesticidal composition comprising, in admixture with an acceptable pesticidal carrier,

a. at least one synergist selected from the group consisting of pyrethrolone, allethrolone, chrysanthemic acid, chrysanthemyl alcohol, chrysanthemate esters, and cis-jasmone; and

b. at least one pesticidal agent selected from the group consisting of:

i. plant essential oil compound selected from the group consisting of aldehyde C16 (pure), amyl cinnamic aldehyde, amyl salicylate, anisic aldehyde, benzyl alcohol, benzyl acetate, cinnamaldehyde, cinnamic alcohol, carveol, citronellol, dimethyl salicylate, eucalyptol (cineole), eugenol, iso-eugenol, galaxolide, guaiacol, ionone, menthol, methyl anthranilate, methyl ionone, methyl salicylate, alpha-phellandrene, pennyroyal oil, perillaldehyde, 1- or 2-phenylethyl alcohol, 1- or 2-phenylethyl propionate, piperonal, piperonyl acetate, piperonyl alcohol, D-pulegone, terpinen-4-ol, terpinyl acetate, 4-tert butylcyclohexyl acetate, thyme oil (white and red), thymol, trans-anethole, vanillin, and ethyl vanillin;

ii. [natural insecticide compound,]chlorinated hydrocarbon, synthetic pyrethroid, [organo phosphate,] carbamate, macrolide, insect growth regulator, neonicitinoid, organo-tin, and [other conventional classes of pesticides such as]propargite.

9. [CANCELED]

10. (Amended) The pesticidal composition of claim 8, wherein the pesticidal agent is selected from the group consisting of allethrin, azadirachtin (neem), carbaryl, [chlorpyrifos,] DDT, fenvalerate, deltamethrin, malathion, permethrin, cypermethrin, cyhalothrin, abamectin, tebufenozide, imidacloprid, resmethrin, propargite, fenbutatin-oxide, pyrethrum, and rotenone.

11. [CANCELLED]

16. A pesticidal composition comprising, in admixture with an acceptable carrier, phenylethyl alcohol and pyrethrum.

17. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and pyrethrum.

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18. A pesticidal composition comprising, in admixture with an acceptable carrier, phenylethyl propionate and pyrethrum.
19. A pesticidal composition comprising, in admixture with an acceptable carrier, eugenol and pyrethrum.
20. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and pyrethrum.
21. A pesticidal composition comprising, in admixture with an acceptable carrier, thyme oil and pyrethrum.
22. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and chrysanthemate ester.
23. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and cis-jasmone.
24. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and PD 98059.
25. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and lavandustin A.
26. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and thymol.
27. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and cis-jasmone.
28. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and chrysanthemyl alcohol.
29. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and chrysanthemic acid.
30. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and chrysanthemate ester.
31. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol, chrysanthemyl alcohol, and chrysanthemic acid.
32. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and pulegone.

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33. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and eugenol.
34. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and cis-jasmone.
35. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and tetrahydrofurfuryl alcohol (THFA).
36. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and lavandustin A.
37. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and PD 98059.
38. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and forskolin.
39. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and geldanamycin.
40. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and malathion.
41. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and deltamethrin.
42. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and permethrin.
43. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and carbaryl.
44. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and eugenol.
45. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and trans-anethole.
46. A pesticidal composition comprising, in admixture with an acceptable carrier, eugenol and trans-anethole.
47. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol, pyrethrum, tetrahydrofurfuryl alcohol (THFA), PD 98059, and trans-anethole.

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48. --A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol, chrysanthemate esters, tetrahydrofurfuryl alcohol (THFA), PD 98059, and trans-anethole.

49. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and trans-anethole.

50. A pesticidal composition comprising, in admixture with an acceptable carrier, benzyl alcohol and trans-anethole.

51. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol, phenethyl propionate and cis-jasmone.

52. A pesticidal composition comprising, in admixture with an acceptable carrier, thymol and phenethyl propionate.